

REMARKS

Reconsideration of this application is respectfully requested.

Claims 10, 12, 13, 30 and 31 have been amended. A portion of claim 10 was deleted. No new matter was added. Claims 12 and 13 have been amended to correct an inadvertent editorial error. Claim 30 has been amended to substitute the term "length" for "maximum linear dimension." Claim 31 was amended to substitute the term "surface mount height" for "thickness." Support for this amendment is found in claim 8 as originally filed and at Substitute Specification p. 31, lines 19-23.

Claims 7 has been canceled.

The Specification was amended to incorporate text from the originally filed claims. Support for this amendment is in present in claims 6, 7 and 8 as originally filed.

The Specification is objected to under 37 CFR 1.75(d)(1) for failing to support claims 6, 8, 10, 11 and 30. The Specification has been amended to include the text of claims 6 and 8. The portion of Claim 10 specifying a receive band insertion loss has been deleted. The amendment to the specification includes the text of claims 11 and 30. Withdrawal of the objection is respectfully requested.

The objection to Claims 12 and 13 has been addressed with the Examiner's suggested correction.

Claims 6, 8, 11, 30 and 31 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which the applicant regards as the invention. Regarding claims 6 and 11, the Office Action (page 3) indicates that the term "a length" is indefinite. This rejection is respectfully traversed. The term "a length" is clearly a reference to the length of the filter as defined in the specification as the dimension identified by numeral 93 in FIG. 1 (Substitute Specification, p. 31, lines 19-23.). Regarding claim 30, the Office Action (page 3) indicates that the term "a maximum linear" is indefinite. Claim 30 has been amended to replace "a maximum linear dimension" with the term "a length."

The rejection of claims 8 is based on the argument that "surface mount height" is indefinite. This specific rejection is respectfully traversed. The term "surface mount height," which is also known by those skilled in the art as "board height," is clearly defined in the specification as the dimension identified by reference numeral 92 in FIG.

1 (Substitute Specification, p. 31, lines 19-23.). To address the related rejection of claim 31, this claim has been amended to replace the term "a thickness" with the term "surface mount height." Withdrawal of all indefinite rejections is respectfully requested.

The rejection of claim 1 under 35 U.S.C. §102(b) as being anticipated by Japan Application No. 4-76239 (Publication No. 5-275903) by Komazaki is not warranted. Claim 1 defines a U-shaped core of dielectric material and not a combination of separate pieces. The Komazaki application describes a combination of pieces as follows: dielectric filter block 100, dielectric filter block 101 and "substrate 102." Please see Komazaki abstract and FIG. 1. It is a feature of the presently claimed invention that a specially configured single core of dielectric material provides a duplexing filter. Although the Office Action identifies "substrate 102" as a base portion, it is instead true that "substrate 102" is a separate piece and not a portion of any core. The Examiner has confirmed the distinction between a single core construction and a multi-block arrangement in making the Restriction Requirement dated 10 February 2003.

Claims 5, 6, 8-13 and 29-31 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the Komazaki application. Applicants respectfully disagree with the conclusion that the specified passbands and insertion loss performance provided by the present invention reflect only obvious design modifications. These specifications coupled with the other claimed features represent a significant technical advance. As discussed in the background of the present Specification, conventional filter designs do not allow such reduced sizes without compromising performance.

The limitations of the rejected claims are not suggested by the Komazaki application. To the extent the Examiner is basing this rejection on his own personal knowledge, he is respectfully requested to make that knowledge of record as contemplated by Rule 132.

The rejection of claim 2 under 35 U.S.C. §103(a) is unpatentable over the Komazaki application in view of U.S. Patent No. 5,563,561 to Ishihara is likewise traversed. The Office Action confirms that the Komazaki application does not disclose "a bridge through-hole extending between the transmit arm outwardly facing surface and the receive arm outwardly facing surface" (Office Action, p. 4, lines 13-14). The Ishihara patent does not cure this defect in the primary reference. First, Applicants

disagree that such a feature is well known in the art. Second, the Ishihara patent does not disclose or suggest a bridge metallized area extending between the transmit arm and the receive arm. Although the purpose for the Ishihara structure identified as R (FIGS. 9, 10 and 11) is not at all clear from the description, it is clear that the R structure does not provide metallization extending between opposing surfaces as claimed. Indeed, the conductor of structure R is broken and not extending: "[t]he dielectric block 1 may be said to contain two dielectric resonators, the end surfaces serving as shorted surfaces and the electrode-free region 4 defining their open circuit ends" (Ishihara Patent, col. 4, lines 10-13). Please see Ishihara FIGS. 1, 1A, 2A, 7A and 11 for a view of the electrode-free region.

Claims 17-20 and 32 are rejected under 35 U.S.C. §103(a) as unpatentable over the Komazaki application in view of U.S. Patent No. 5,488,335 to Agahi-Kesheh et al. This rejection is respectfully traversed. Claims 17-20 depend from claim 1 and are therefore allowable for the reasons applied to claim 1 above.

Claim 32 defines a U-shaped core of dielectric material and not a combination of separate pieces as called for in the primary Komazaki reference. As noted above with respect to claim 1, Komazaki teaches two blocks and a substrate: filter block 100, filter block 101 and substrate 102. The Komazaki reference does not disclose the claimed U-shaped core feature. The Agahi-Kesheh patent does not show or describe this missing feature.

Applicants have noted the art cited by the Examiner but not relied upon. None of these prior art references vitiate the patentability of the present claims.

The present amendments to the claims and the accompanying discussion are believed to dispose of all issues in this case and to place this application in condition for allowance. Passing of this application to issue is respectfully requested. Applicants' representative would welcome an opportunity to further discuss options for gaining allowance.

Please charge any deficiency associated with this amendment to our Deposit
Account No. 03-1677.

Respectfully submitted,



Steven Weseman (Reg. No. 41,372)

CTS Corporation
171 Covington Drive
Bloomingdale, IL 60108
Telephone: (630) 924-3790
Facsimile: (630) 924-6603

CERTIFICATE OF MAILING

I, Joan C. Ramm, hereby certify that this Amendment and Response is being deposited with the United States Postal Service as first class mail on 30 October 2003 in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



Joan C. Ramm
Joan C. Ramm